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COR NO: 1424 Copy No. E Page 1 of 30 October 1961

NRO REVIEW COMPLETED

PHOTOGRAPHIC EVALUATION REPORT

Mission No: 9025 J-23-7600 Photo Date: 13 October 1961

Evaluation No. FE 98-61 Filter, Horizon: W 25A

Film Type: Camera No: 56 Filter, Main: W 21 Evaluated by: CL & GT

Shutter Operation:

a. Port Horizon - Good

b. Starboard Horizon - Good

Generally speaking, the horizon cameras operated satisfactorily throughout the mission. However, on some passes when the last frame should have contained horizon formats, they failed to be exposed. This condition occurred in conjunction with no exposure of the digitote.

- 2. Slit Operation (Main): .2" Good
- 3. Camera Number (Image Quality): Over exposed but readable; first digit tracked off edge of format throughout.
- Digitate Operation: Digitate was difficult to read intermittently throughout the mission. Occasionally unit and tenths digits could not be read. At the end of a majority of passes the digitote was not recorded.
- 5. Film Metering: Ranged from .12" to .2" throughout. Average metering between port horizon format and terrain format was .18", average between starboard horizon format and terrain format was .12". Port horizon format offset to the right from .02" -.08" in relation to terrain format throughout mission.
- 6. Film Tracking: Normal. However pressure marks on leading edge of frames 3, 4 of last pass, 18 seem to indicate a mistracking problem.
- 7. Timing Pulses: None
- 8. Shrinkage Markers: None
- 9. Fiducials:
 - a. Main Camera ragged throughout mission.
 - b. Horizon Cameras for most part, sharp throughout mission. However, flare noted from top fiducial intermittently.
- 10. Flare: Probable reflections noted on several frames at beginning and end of all passes. Noted in particular was a boat-shaped fogged area that occurred on all passes. An example can be found on pass 03, frame 02. In addition the end of pass marker flared over into the terrain format throughout the mission.
- 11. Light Leaks: Light leaks were noted on first two frames and last three frames of every pass. As evidenced on mission 9022, wherever a photo pass followed an engineering pass no fogging was apparent at the beginning or end.
- 12. Forward Overlap: Slightly above 10%.
- 13. Static Electricity: Very little; pass 02, frames 31, 32; pass 03, frame 17.
- 14. Pinholes: Numerous on pass OE1, frames O1-24; pass O2, frames O1, O2, 18. Few thereafter.
- 15. Abrasions and Scratches:
 - a. Scratches outside format along leading and trailing edges continuous throughout, probably caused by rails.
 - b. Scratches and digs inside format were noted on pass OE1, frames 1-3, 22; pass O2, frames 10, 12, 18, 34; pass O3, frames 19, 20, 24, 25; pass O4, frames O2, O7, 30, 34, 42; pass O5, frames O2, 72, 74, 75-81; pass O7,

TOP SECRET

COR NO. 1424 Page 2 of

frames 27, 76-78, 131; pass 08, frames 46, 47, 63, 151-154, 166; pass 09, frames 50-52, 54-59, 64, 67-80, 86, 90-99; pass 10, frames 01, 07, 10, 30, 31; pass 15, frames 22, 27; pass 18, frames 01-04, 40-42.

- Abrasions were noted near the starboard horizon format on passes 10 and 15. Abrasions within the format were noted on pass 02, frame 01; pass 07, frames 77, 80; pass 10, frame 01.
- 16. Tearing: None noticed. A portion of the last frame on pass 18 was missing.
- 17. Processing Streaks: None noted.
- 18. Pressure Marks: The port horizon format contained a pressure mark throughout the mission. A large desensitized streak, not parallel to the edge of the film was noticed on pass OE1, frames 10, 21, 22; pass 15, frames 03, 04; pass 17, frames 03, 04, 05. A desensitized spot occurring every 3.14", 1/8" in from the trailing edge was noticed on pass OEl. Indiscriminate desensitized spots were noted intermittently on all passes.
- 19. Water Marks: None noted.
- 20. Blistering and Frilling: Few blisters, no frilling
- 21. Density: Medium 30%, heavy 70%. Density appeared heavy due to cloud cover, snow and texture of terrain.
- 22. Contrast: Low 75%, medium 25%.
- 23. Apparent Resolution: 96% of every frame in the mission was out of focus but in areas of good focus, resolution appeared comparable to the best in missions 9022 and 9023.
- 24. Apparent Granularity: Very fine.
- 25. Photo Quality: Poor
 - a. Degradation due mainly to poor focus.
- 26. Camera Operation: Poor
 - a. Degradation due to flat horizon photos, no timing pips, poor exposure on digitote, illegible digitote, main format almost totally out of focus, conspicuous light leaks on approximately 5 frames per pass, end of pass indicator appeared at beginning of passes, fiducials were blunted in main format, and some type of film slippage was evident at the end of passes.
- 27. Suitability for PI: Poor 96%, very good 04%.
 - a. Degradation due to main format and horizon format areas being out of focus.

Remarks:

- 1. The average pitch and roll were very close to 0° with a maximum roll of less than -010 occurring at camera turn on.
- 2. 96% of the main format area appeared out of focus. In focus areas appeared as small narrow bands adjacent to the trailing edge of the film and where the film left the main format area, near the rollers on both ends of the format.
- The end of pass markers were over exposed and covered a small portion of the format area.
- 4. The end of pass markers usually occurred at the beginning of a pass.
- The camera number was slightly over exposed and the first digit tracked off the film edge.

COR NO. 1424 Page 3 of 4

- 6. Creases:
 - a. Noted along the trailing edge of the film and probably due to film handling before evaluation. Pass 05, frames 76 to 99; pass 08, frames 84 to 150.
- 7. Crimping: Pass OE1, frames 09, 10, 13, 17, 22; pass 03, frames 09, 20; pass 04, frames 01, 04, 06, 09; pass 05, frame 69; pass 08, frames 82, 122.
- 8. Foreign material noted on pass OE1, frame O4; pass O5, frame O1; pass O9, frame 75.
- 9. Bits of emulsion were lifted from pass 02, frames 09, 10, 14, 38, 40; pass 03, frames 10, 24; pass 05, frame 08; pass 07, frame 111.
- 10. Stains were noticed on pass OE1, frames 09, 24; pass 03, frames 01, 14, 24; pass 05, frame 57; pass 08, frame 123.
- 11. Titling ran into main format on pass OE1, frame O1.
- 12. Titling was smeared on pass OE1, frame 24.
- 13. Some type of slippage occurred after camera was turned off. Some fogging with "ghost fiducials" was noticed on the last frame of passes 02, 03, 07, 08, 09, 10, 15, 17.
- 14. Initiation of recovery sequence occurred on pass 18, frame 27.
- 15. Edge fog and slight mottling of the film edges were noted throughout the mission.
- 16. Density readings were made on every pass using the Eastman Kodak Reflection -Transmission Color Densitometer Model RT. Two readings were made for base fog as fogging appeared greater at the edges than in the center of the film.

Pass	No. Frame	e D Max	D Min	Base Center	Fog Edge
OE1	04	2.10	1.03	0.22	0.24
	13	2.20	0.66	0.20	0.20
	21	2.17	1.10	0.21	0.21
02	03	2.03	0.63	0.19	0.20
	21	1.94	0.63	0.19	0.20
	41	1.91	0.85	0.21	0.22
03	03	2.12	0.68	0.23	0.2 ¹ 4
	11	2.09	0.58	0.22	0.28
	22	2.06	0.83	0.22	0.25
04	05	1.82	1.09	0.23	0.23
	25	2.13	0.66	0.22	0.22
	49	1.94	0.73	0.20	0.23
05	04 44 95	1.82 1.71 2.17	0.79	0.22 0.22 0.21	0.26 0.27 0.27
07	05	1.57	0.52	0.22	0.30
	47	1.98	0.77	0.22	0.28
	129	2.20	0.86	0.18	0.24
80	64	1.67	0.85	0.20	0.25
	116	1.91	1.14	0.19	0.23
	166	1.88	1.04	0.18	0.24

COR NO.	1424
Page 4	of 4

Pass No.	Frame	D Max	D Min	Base Center	Fog Edge
09	02	1.95	0.51	0.15	0.20
	50	1.88	0.97	0.17	0.21
	87	2.29		0.16	0.22
10	03	2.01	0.54	0.17	0.22
	13	1.9 ¹ 4	.75	0.18	0.24
	27	1.95	.74	0.18	0.23
15	07	1.75	0.86	0.16	0.2 ¹ 4
	15	2.10	0.74	0.18	0.23
	28	1.78	0.88	0.18	0.2 ¹ 4
17	05	1.87	0.58	0.16	0.23
	21	2.00	0.68	0.18	0.22
	38	2.02		0.18	0.23
18	11	1.87	0.99	0.19	0.25
	20	1.98	0.90	0.18	0.26
	28	1.97		0.18	0.24
	- 00 7 557	Average 1.9	97		

D Max range 2.29 - 1.57

Average 1.97

D Min range 1.14 - 0.51

Average 0.79

Base Fog range - Center 0.23 - 0.15 Average 0.19

Base Fog range - Edge 0.30 - 0.20

Average 0.24

Total range 2.29 - 0.51

Average 1.38

Minimum D Min to Maximum D Max = 1.78

Average D Min to Average D Max = 1.18

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MEMORANDUM FOR I Military Representative of the President

The Deputy Under Secretary of State for Political Affairs

The Deputy Secretary of Defense

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Personal of CIA Air Activities for November 1961

- i. Amached is a listing of pleasant CIA air activities for the month of November 1961, including scheduled Discoverer shots.
- 2. Although three Siscoverer firings were scheduled for the mouth of October, only two were accomplished. The CONOMA shot set for 13 October was launched on schedule and was recovered at the and of the first day. The early recovery was necessisated by a malfunction in the vehicle. The CORORA shot acheduled for 19 October was launched on 23 October but falled to achieve orbit due to less of control gas. The CORONA shet scheduled for 16 Ortober has elipped to 1 Hovember. (Grand Michael H. Stroot . Mr.

MICHARD M. SESSEL, Jr. Depty Arests (Plans)

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OR 1425/A

COMPARAGE OF CLASSES ACTIVITIES FOR NOVALLABLE 1961

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STANLEY W. BEEELI
Acting Chief. DFD-DD/F

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